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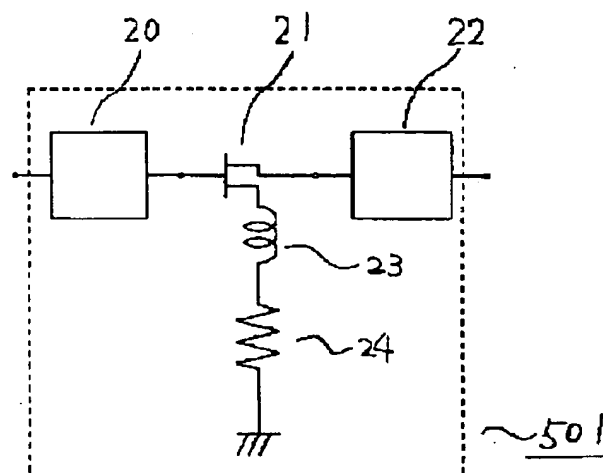
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TITLE : DISTORTION COMPENSATION
CIRCUIT, LOW DISTORTION
SEMICONDUCTOR AMPLIFIER AND
FET ELEMENT



ABSTRACT : PURPOSE: To obtain a distortion compensation circuit with high efficiency and a low distortion semiconductor amplifier with a small size.

CONSTITUTION: A low distortion amplifier as a whole is obtained by employing amplifiers for a front-stage or inter-stages of a multi-stage amplifier in which a gain and a pass phase characteristic with respect to input power is reverse to that of post-stage amplifiers so that the amplification distortion and the phase distortion of the post-stage amplifiers are compensated by the front-stage or inter-stage amplifiers. As the amplifiers used for the front-stage or inter-stages, a distortion compensation circuit 501 in which an inductor whose inductance is high or series connection of an inductor 23 and a resistor 24 is inserted between a source of a common source FET 21 and ground, a distortion compensation circuit in which an inductor and a DC blocking capacitor or an inductor and a resistor and a DC blocking capacitor are inserted between the gate of a common gate FET and ground, or a distortion compensation circuit in which a DC blocking capacitor is inserted between the gate of the distortion compensation circuit above and ground, is used.

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